



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,340	06/11/2001	Quintin T. Phillips	10010990-1	4062

7590 06/29/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

GARCIA, GABRIEL I

ART UNIT	PAPER NUMBER
----------	--------------

2624

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,340

Applicant(s)

PHILLIPS ET AL.

Examiner

Gabriel I. Garcia

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21, 24, 29, 30, 32 and 34-36 is/are allowed.
- 6) ☒ Claim(s) 22-28, 31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 22-28,31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward et al. (US 6,798,997).

Regarding claim 22, Hayward et al., teach a printing system (column 9:lines 33-42 & Figure 8) having consumable print media (column 9:line 42, paper) and a cartridge with consumable marking agent (column 9: lines 41-42, toner, and toner cartridge), a method comprising: detecting when a trigger event occurs within the cartridge (column 8:lines 26-31, predetermined threshold; and placing an order for additional print media when the trigger event is detected (Column 9:lines 21-26, electronic order is automatically initiated for a replacement consumable component).

Regarding claim 23, Hayward et al., teach a method as recited in claim 22, further comprising: setting parameters for ordering print media (column 9:lines 21-33, threshold conditions include within them parameters used to automatically initiate an electronic order for a replacement of the print media. Set parameters include measure of supply,

Art Unit: 2624

and statistical data for the component interpreted by the Office as including consumable amount remaining (column 8:lines 36-40, parameter is continuously set for each print job use of consumable) and time since component was installed (Note also that setting a time parameter that tallies time since the component was installed, although not mentioned specifically by Hayward et al., is essential if the rate of depletion calculation and the estimated date of depletion calculation are to function, because otherwise, without collecting a time parameter, their calculations would be missing an element essential to arriving at their calculated value. Therefore, setting a time parameter that tallies the amount of time since component was installed is inherent to the teachings of Hayward et al., Also, column 8:lines 26-31, predetermined parameters also include a threshold for indicating when to reorder supply of print medial; gathering daily print media usage data (column 9:lines 26-28, consumable component 11 measures component usage. Column 8:lines 32-40, monitor module tracks ink use every time a print job is sent to the printer; developing a usage distribution from the usage data (column 8:lines 32-36, monitor module tracks each job (usage data) to develop how much ink has been expended in each color for cartridge (usage distribution) correlating one or more of the parameters with the usage distribution to determine a usage tolerance (column 9:lines 26-29, threshold conditions include the rate of depletion for the print media, which is the usage tolerance. In order for a rate of depletion to be calculated, the total use of the cartridge (usage distribution) must be divided by the time since the cartridge was installed (set parameter). Therefore, the rate of depletion (usage tolerance) is determined by correlating the total cartridge use (usage distribution) with

Art Unit: 2624

time since cartridge was installed (set parameter), and controlling the size of the order with the usage tolerance (column 9:lines 21-33, conditions, including usage tolerance (i.e. rate of depletion of print media), are used to determine when to order replacement media for the particular amount of media that will become exhausted. column 9, lines 26-30, threshold conditions include predicted date of depletion of supply) . The steps of the calculation of a date when the current supply of print media will be depleted, although not mentioned specifically by Hayward et al., are essential if the prediction is to function. Therefore in order to arrive at the predicted date of depletion for the cartridge supply, it would have been obvious that the consumable amount remaining (set parameter) would be divided by the rate of depletion (usage tolerance) which would result in the time until exhaustion of supply. It is obvious that this value would then be correlated with the current date so the date of supply depletion could then be calculated so, a an order is automatically placed that contains an amount value of replacement. Accordingly, it would have been obvious and within the skill level of one of ordinary skill in the art at the time of the invention to select a calculation method to arrive at the predicted date of depletion for the cartridge supply based on the teachings of Hayward et al., and the requirement to calculate a date when a current supply of print media will be depleted.

Regarding claim 25, Hayward et al., teach a method as recited in claim 22, further comprising: placing an order for a new cartridge when the trigger event is detected (Column 9:lines 21-26, electronic order is automatically initiated for a replacement

Art Unit: 2624

consumable component. Column 9:lines 41-41, toner and toner cartridge are consumables that are ordered).

Regarding claim 26, Hayward et al., teach a method as recited in claim 22, wherein the cartridge comprises memory storing a vendor uniform resource locator (URL), and wherein the placing an order further comprises: retrieving the vendor URL from the memory (column 7:lines 45-48), contacting the vendor by way of the URL (column 7:lines 60-64, user contacts the purchase order page of the vendor; and providing an order to the vendor (column 8:lines 6-12, order sent to vendor.

Regarding claim 28, Hayward et al., teach a method as recited in claim 22, wherein the trigger event is a signal indicating a low level of marking agent within the cartridge (Column 9:lines 41-42, toner and toner cartridge are consumables that are ordered. column 8:lines 26-31, order occurs at predetermined thresholds, i.e. ink level low).

Regarding claim 31, Hayward et al., teach a printer (figure 8, marking device 8) comprising: a cartridge containing a consumable marking agent (figure 8, consumable component 11, which, column 9:lines 40-42, may include ink and toner cartridges); a detector to sense a level of marking agent within the cartridge (column 8:lines 26-31, predetermined threshold condition indicates when the consumable has reached an ink level); a supply of consumable print media (figure 8, consumable component 11. which, column 9:lines 40-42, may include ink and toner; and a controller configured to place an order for additional print media when the detector senses a low level of marking agent (column 9:lines 20-32, marking apparatus 8 automatically communicates an order when predefined threshold conditions are met).

Art Unit: 2624

Regarding claim 33 Hayward et al., teach a computer (figure 2, computer 30 & figure 8, remote output device 50) coupled to a print device (figure 2, peripheral 10 & figure 8, marking apparatus 8), the print device comprising a supply of consumable print media (figure 8, consumable component 11, which, column 9:lines 40-42, may include ink and toner), a consumable marking agent (figure 8, consumable component 11, which, column 9:lines 40-42, may include ink and toner cartridges), and a detector to sense a level of the marking agent (column 8:lines 26-31, predetermined threshold condition indicates when the consumable has reached an ink level), the computer comprising: a printer controller configured to place an order for additional print media when the detector senses a low level of marking agent (column 9:lines 12-25, remote output apparatus 50 communicates with consumable to determine a low ink level and then produces an automatic order).

2. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayward et al. (US 6,798,997), as applied to claim 22 above and further In view of Kurz

Regarding claim 27, Hayward et al., teach a method as recited in claim 22, but do not teach the cartridge comprising memory storing a vendor telephone number, and wherein the placing an order further comprises: retrieving the vendor telephone number from the memory; contacting the vendor by way of the telephone number; and providing an order to the vendor. However, Kurz et al.. teach a CRU replaceable unit (column 3:lines 27-29, ink cartridge) that includes memory (column 3:lines 41-84, CRUM

Art Unit: 2624

memory device included in CRU) that holds notices (column 7, lines 4-6) comprising retrieving a telephone number for a vendor (column 5: lines 26-34, notice includes vendor phone number; contacting the vendor by way of the telephone number (column 8: lines 8-11, information is places so the user can contact the vendor for ordering purposes; and transferring user identification and order detail information to the vendor (column 7, lines 31-35, the notice includes customer information and ordering information for customer to place an order). Accordingly, it would have been obvious to one skilled in the art at the time of the invention to have used the manual order notice as taught by Kurz et al., in the system and method taught by Hayward et al., because the Kurz et al. teachings provide the ability for a user to contact the vendor via phone (column 5: lines 26-34, warning includes vendor phone number).

Conclusion

3. Claims 1-21, 24, 29-30, 32, & 34-36 are being allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

The invention is directed to calculating a date when a current supply of print media will be depleted. The closest prior art, Hayward et al. (US 6,798,997), disclosed a similar method of calculating a date when print media will be depleted.

Hayward et al., do not teach setting a notification limit; setting a confidence level; setting an initial media supply level; gathering daily media usage data to develop a usage distribution; correlating the confidence level to a daily usage tolerance within the usage

Art Unit: 2624

distribution; and from the initial media supply level and the media usage tolerance, calculating the days remaining before the initial media supply level is depleted.

Hayward et al., do not teach a printer comprising: consumable print media; and a printer controller configured to develop a usage distribution from daily print media usage data and correlate a user confidence level with the usage distribution to determine a usage tolerance; the printer controller further configured to calculate a date when a current supply of print media will be depleted using the usage tolerance. Also, Hayward et al., do not teach a system comprising: a marking agent cartridge; a detector to provide a sensed level of marking agent within the cartridge; and a controller configured to develop a distribution of print media usage, correlate a confidence parameter with the distribution to determine a usage tolerance, and control the size of a print media order based on the usage tolerance', the controller further configured to place the order when the detector senses a low level of marking agent, wherein the confidence level is defined as a number that indicates what percentage of print media orders a user is willing to receive after a current print media supply is detected (Specification, page 13, lines 5- 6).

4. Applicant's arguments filed 3/15/05 have been fully considered but they are not persuasive. With regard to Applicant's argument that Hayward does not teach or suggest ordering for additional print media when a trigger event occurs within the cartridge. Examiner disagrees with Applicant's conclusion. Examiner maintains that

Art Unit: 2624

Hayward does teach ordering for additional print media when a trigger event occurs within the cartridge (e.g. col. 8, lines 26-31 and col. 9, lines 21-26, clearly describe how an event triggering the consumption of ink is detected and an order is placed to order print media, as the paper tray is near empty).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel I. Garcia whose telephone number is (571) 272-7434. The Examiner can normally be reached Monday-Thursday from 7:30 AM-6:00 PM. The fax phone number for this group is (703) 872-9314.

Art Unit: 2624

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

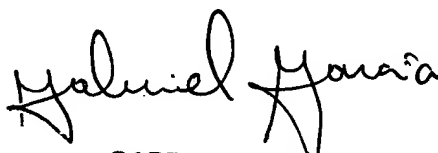
Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005.

After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

Gabriel I. Garcia
Primary Examiner
June 26, 2005



GABRIEL GARCIA
PRIMARY EXAMINER